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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,108

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Ulf Dietrich

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EXAMINER

LEE, DORIS L

ART UNIT

PAPER NUMBER

1796

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,108	Applicant(s) DIETRICH ET AL.	
	Examiner Doris L. Lee	Art Unit 4145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 16-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20051128</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. **Claim 16** is objected to because of the following informalities: the limitation in monomer "d" states a limitation of "polyethylene glycol" which does not chemically agree with the further limitation in the claim of "alkylene oxide units from C3-4 alkylene groups". For the purpose of this application, the limitation "polyethylene glycol" has been interpreted to mean "polypropylene glycol or polybutylene glycol". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 16-23, 25 and 27-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tahara et al (EP 0 448 717)**.

Regarding claims 16-20, Tahara teaches a dispersant (Abstract) comprising at least one copolymer prepared by polymerizing a polymerizable mixture (Abstract) comprising (page 14, line 45, Example (III) and page 15, lines 20-26):

- a) 1-98% by weight acrylic acid (page 10, line 56)
- b) 1-98% by weight 2-acrylamido-2-methylpropanesulfonic acid (page 11, line 18)
- c) polyethylene glycol mono(methacrylate) and
- d) methoxypolypropylene glycol mono (meth)acrylate (page 11, lines 55-58 and page 12, lines 1-3) where the total amount of c) + d) is 1-70% by weight

Tahara also teaches that the repeating unit of ethylene oxide or propylene oxide is greater than 2 (page 10, line 42).

Tahara does not explicitly teach the ranges disclosed in the instant claim.

It is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

Regarding claim 21, Tahara discloses all the limitations as set forth above.

While Tahara exemplifies methoxypolypropylene glycol mono(meth)acrylate for component (d), nevertheless, noting that all parts of a reference are equally applicable and that a preferred or exemplified embodiment is not controlling (case law holds that "applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others." (In re Courtright, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967)) attention is drawn to the disclosure of polyethylene glycol polypropylene glycol monomethacrylate (page 12, line 1) which has 3 propylene oxide groups and 7 ethylene oxide groups at page 21, Example 7 as another choice for component (d) in place of the exemplified methoxypolypropylene glycol mono(meth)acrylate.

Indeed the motivation for using the former is strengthened by the ruling in *KSR v. Teleflex* (550 U.S. __, 82 USPQ2d 1385 (2007)) in which choosing from a finite number of identified, predictable solutions with a reasonable expectation of success was indicated as an acceptable rationale or motivation for obviousness (cf. Rationale E). See MPEP 2141.

Regarding claim 22, Tahara discloses all the limitations as set forth above. In addition, Tahara teaches that hydrophobic co monomers units (e) which are (meth) acrylate esters of alcohols with 1 to 15 C atoms are also used as co monomers (page 14, lines 28-33).

Regarding claim 23, Tahara discloses all the limitations as set forth above.

Tahara discloses the dispersant as disclosed in instant claim 1 and discloses its use in a cement composition (Abstract), so although modified Tahara does not claim the

specific properties as disclosed in instant claim 23, it is therefore inherent that the dispersion of Tahara has such properties since such a property is evidently dependent upon the nature of the composition used. Case law holds that a material and its properties are inseparable. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Regarding claim 25, Tahara discloses all the limitations as set forth above. In addition, Tahara teaches that the dispersant that acts like a cement plasticizer in a hydraulically settable mortar composition (page 4, lines 22-25).

Regarding claims 27-29, Tahara discloses all the limitations as set forth above. In addition, Tahara teaches that the composition is a construction composition further comprises a binder made of flowable (page 19, line 46) Portland cement (page 17, lines 31-34) where the dispersant exhibits a plasticizing action (page 4, lines 22-25).

5. **Claims 24 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Weitzel et al (US 6,127,283)** in view of **Tahara et al (EP 0 448 717)**.

Regarding claims 24 and 26, Weitzel teaches a process for spray drying of an aqueous polymer dispersion (col. 1, lines 7-12) in which vinyl acetate-ethylene (col. 2, lines 46-47) is used. It also teaches that a 2nd component, namely a water soluble copolymer containing sulfonic acids (col. 1, lines 50-58). Weitzel also teaches that this composition is used for the modification of cement-containing compositions and that when you spray dry the polymer dispersion; you reduce transport and storage capacity (col. 1, line 16).

However, it does not explicitly teach the copolymer of instant claim 16.

Tahara teaches the composition of the composition of instant claim 16 as set forth above. Tahara also teaches that the composition enhances the flowability of the cement (page 4, line 23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the copolymer of Tahara in the spray drying process of Weitzel. One would have been motivated to do so in order to reduce the transport and storage capacity of a composition (Weitzel col. 1, line 16) that enhances the flowability of the cement (Tahara, page 4, line 23). They are combinable because they are concerned with the same field of endeavor, namely polymers used in concrete. Absent objective evidence to the contrary and based upon teachings of the prior art, there would have been a reasonable expectation of success.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doris L. Lee whose telephone number is (571)270-3872. The examiner can normally be reached on Monday - Thursday 7:30 am to 5 pm and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DLL 5/20/2008

/VASUDEVAN S. JAGANNATHAN/
Supervisory Patent Examiner, Art Unit 1796